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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,489	11/11/2003	Albrecht Weiss	5005.1065	5102

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EXAMINER

PRITCHETT, JOSHUA L

ART UNIT	PAPER NUMBER
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2872

DATE MAILED: 09/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/705,489	WEISS, ALBRECHT	
	Examiner	Art Unit	
	Joshua L. Pritchett	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to Amendment filed August 15, 2006. All applicant's arguments have been considered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 7-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leiter(US 5,022,744) in view of Pierrat (US 6,023,328).

Regarding claims 1 and 19, Leiter teaches a microscope comprising a light source (2) including a control device configured to control an intensity of light emitted by the light source (col. 4 lines 1-3); an illumination optical system having a numerical aperture and being configured to illuminate a specimen (part of microscope (1); Fig. 1); an aperture device (25) disposed in an illumination beam path and configured to modify the numerical aperture (col. 4 lines 1-3); a spectral correction device (4) disposed in the illumination beam path (Fig. 1) and

configured to correct a change in a spectral intensity distribution of the light emitted by the light source so that a spectral intensity distribution of light directed onto the specimen remains substantially unchanged (col. 3 lines 41-64). Leiter lacks reference to controlling the numerical aperture and the light source. Pierrat teaches upon a change of the numerical aperture by the aperture device, the light source is controllable by the control device of the light source so that a light flux through the illumination optical system remains substantially unchanged (col. 4 lines 142-65). Pierrat teaches that the control element (80) controls the numerical aperture of the lenses (30 and 50) as well as the light source (20) to maintain an intensity profile. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Leiter invention include the light source control of Pierrat for the purpose of providing a constant intensity to the specimen so that there is always sufficient light to observe the specimen but not so much as to damage the specimen.

Regarding claim 2, Leiter teaches the control device is configured to change the spectral intensity distribution of the light emitted by the light source (col. 3 lines 41-64).

Regarding claims 3 and 20, Leiter teaches a light sensitive detector (19 and 20) in the illumination beam path (Fig. 1) and configured to detect at least a portion of the light flux through the illuminating optical system and generate, as a function of the detected light flux, a signal that is usable for open-loop or closed-loop control of at least one of the light source and/or of the spectral correction device (col. 3 lines 41-64).

Regarding claim 4, Leiter teaches the aperture device includes an aperture having a changeable diameter (col. 4 lines 1-3).

Regarding claim 5, Leiter teaches the diameter of the aperture is changeable by a motor (26).

Regarding claims 7, 21 and 27, Leiter teaches the spectral correction device includes a filter (7 and 8) disposable in the illumination beam path, the filter having a plurality of working positions, a filter characteristic of the filter being a function of the respective working positions (col. 3 lines 41-64).

Regarding claims 8-10, Leiter teaches the invention as claimed but lacks reference to the specific type of filter used. It is extremely well known in the art to use either an absorption filter, an interference filter or a reflection filter to filter out light of an unwanted wavelength. Official Notice is taken. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Leiter invention include of the above mention types of filters as is known in the art for the purpose of achieving precise and well known results.

Regarding claim 11, Leiter disclose a spectral transmittance of the filter changes at least one of continuously and discontinuously (col. 3 lines 41-64). The spectral transmittance of the filter changes discontinuously as it is moved with respect to the beam path.

Regarding claim 12, Leiter teaches the spectral transmittance of the filter changes in stepped fashion (col. 3 lines 41-64). The transmittance of the filter changes in step fashion by having one red filter, one blue filter and no filter between the red and blue filter.

Regarding claim 13, Leiter teaches the spectral correction device is capable of changing a spectral intensity distribution of the light from the light source by a motion of the spectral correction device relative to the illumination beam path (col. 3 lines 41-64).

Regarding claims 14 and 22, Leiter teaches a motor (9) configured to move the spectral correction device.

Regarding claims 15 and 23, Leiter teaches the spectral correction device includes a linearly displaceable filter (col. 2 lines 36-38).

Regarding claims 16 and 24, Leiter disclose respective intensities of the light emitted by the light source and respective working positions of the filter are predeterminable and storable as a function of respective settings of the aperture device (col. 3 lines 32-40).

Regarding claim 17, Leiter teaches the spectral correction device is configured to influence the light intensity of a red spectral region (col. 3 lines 53-56).

Regarding claims 18, 25 and 26, Leiter teaches a control computer (23) configured to control the spectral correction device (Figs. 1 and 3; col. 3 lines 32-40).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leiter (US 5,022,744) in view of Pierrat (US 6,023,328) as applied to claim 1 above further in view of Weiss (US 2003/0011910).

Leiter in combination with Pierrat teaches the invention as claimed but lacks reference to modifying the power to the light source. Weiss teaches controlling the light source by modifying the power delivered to the light source (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Leiter in combination with Pierrat invention include the modification of power to the light source as taught by Weiss for the purpose of more precise control over the intensity of the light that incidents the specimen.

Response to Arguments

Applicant's arguments filed August 15, 2006 have been fully considered but they are not persuasive.

Applicant argues there is no suggestion the control of the numerical aperture is being done by a device in the illumination beam path. Pierrat teaches the controller (80) controls the numerical aperture of the lenses (30 and 50). The lenses are in the illumination beam path therefore the control of the numerical aperture occurs in the illumination beam path.

Applicant argues the prior art fails to suggest keeping the light flux substantially unchanged. Applicant argues the intensity is different than the light flux. The examiner agrees that the intensity is not the same as the light flux but is a part of the light flux. By maintaining the intensity as set forth in the Pierrat reference and leaving the wavelength of the illumination light unchanged (Pierrat gives no hint or suggestion to changing the wavelength of the light), the examiner views the light flux as being "substantially unchanged" within the broadest reasonable interpretation of the phrase.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua L. Pritchett whose telephone number is 571-272-2318. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A. Dunn can be reached on 571-272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


DREW A. DUNN
SUPERVISORY PATENT EXAMINER

Joshua L Pritchett 
Examiner
AU 2872